UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC - 5 2012

REPLY TO THE ATTENTION OF:

MEMORANDUM

SUBJECT: Toxic Substances Control Act (TSCA) Program Consultation on Risk-Based Disposal for PCB Remediation Waste at the Outboard Marine Corporation Superfund Site, Waukegan, Illinois

FROM: Margaret M. Guerriero, Director
Land & Chemicals Division

TO: Richard C. Karl, Director
Superfund Division

This memorandum is the response to your request for a Land and Chemicals Division (LCD) consultation on the proposed risk-based disposal plan of polychlorinated biphenyl (PCB) Remediation Wastes at the Outboard Marine Corporation (OMC) Plant 2 Site, Operable Unit 4 of the OMC Superfund Site in Waukegan, Illinois. This consultation is done pursuant to Region 5 Delegation 12-5 which states that the authority to approve or deny applications for risk-based sampling, cleanup, storage, decontamination, or disposal of PCB or otherwise require, allow, restrict, or prohibit PCB management activities based on a finding that the activity does not present an unreasonable risk of injury to health or the environment is delegated to the Director of the Superfund Division subject to consultation with the Director of the Land and Chemicals Division.

According to the information you provided, Superfund is requesting consultation on three areas at OMC to be addressed under the 2012 Proposed Plan for Record of Decision (ROD) Amendment which underwent public notice and comment in July 2012. The Proposed Plan will address three areas known as the Old Die Cast Building (ODC) area, the North Utility Corridor, and the West Utility Corridor. These areas contain residual PCB at concentrations exceeding 50 parts per million (ppm). The North Utility Corridor contains a large-diameter, high-pressure gas main owned by North Shore Gas. The West Utility Corridor contains an aging, large-diameter sewer force main connecting a nearby suburb to the North Shore Sanitary District sewage treatment plant. Superfund examined the potential pathways of concern at these areas of OMC to human and ecological receptors under current and future site-use scenarios, determined that excavation of contaminated soil in the vicinity of the active North and West Utility Corridors is unsafe and impractical, and proposed remedial alternatives which would not pose an unreasonable risk of injury to human health or the environment.

ODC Area

The proposed remedial alternative for the ODC area includes the installation of a bentonite clay vertical barrier (slurry) wall around the contaminated soil which will be keyed into a thick, impermeable clay zone at the base of the groundwater aquifer. A Resource Conservation and

Recovery Act (RCRA) Subtitle C equivalent cap (35 Illinois Administrative Code (IAC) 811) will be installed over the contaminated soils. Groundwater extraction wells will be installed inside the slurry wall and pumped to create an inward gradient. Extracted water will be treated at the existing on-site treatment system prior to discharge. Any removed PCB impacted Non-Aqueous Phase Liquid (NAPL) should be disposed of as required by 40 CFR §761.60(a). LCD believes the planned remedial actions for the ODC as described in the ROD Amendment and reiterated above, including management of removed PCB impacted NAPL in accordance with 40 CFR §761.60(a), would be compliant with the TSCA at 40 CFR §761.61(c) and the Regional Delegation 12-5.

Utility Corridor Areas

Your memo, the Focused Feasibility Study Report, and the Decision Summary documents note that Superfund will conduct additional soil sampling at the utility corridors, as part of the Preliminary Design investigation, to assist in the definition of nature and extent of surface and subsurface PCB contamination. This Preliminary Design investigation will assist Superfund in determining requirements for Institutional and/or Engineering Controls for these areas. The memo notes that Superfund has determined that use of a RCRA Subtitle D equivalent cap (35 IAC 807 Cap) over the PCB contamination at the utility corridor areas would not pose an unreasonable risk of injury to health or the environment. The specific soil type for the cap is still to be determined; however, it is assumed that the cap soil would consist of 24 inches of low-permeability clay and 6 inches of topsoil and be vegetated. The Focused Feasibility Study Report indicates that low levels of PCB were detected in two monitoring wells constructed in the vicinity of the PCB Dense Non-Aqueous Phase Liquid (DNAPL) near the ODC area, that PCBs were not detected in any of the other monitoring wells across the site, and are not anticipated outside of the potential PCB source areas based on the slow migration velocities of PCBs in groundwater (0.03 foot per year). The area with PCB-contaminated groundwater will be included within the ODC remedy. For the utility corridor areas, your memo indicates that a more impermeable cap would not provide an improved level of prevention of direct contact exposure to PCB contaminated soils, nor would it provide a significantly different level of protection from migration of PCB in groundwater from the covered areas.

The land disposal options for non-liquid PCB Remediation Waste at concentrations $\geq$ 50 ppm at 40 CFR §761.61(a) and (c) include on-site, risk-based disposal in a low occupancy area (as defined at 40 CFR § 761.3) that is capped; disposal in an approved TSCA chemical waste landfill; and disposal in a hazardous waste landfill permitted by EPA under section 3004 of RCRA, or by a state authorized under section 3006 of RCRA. Typically, off-site disposal of PCB Remediation Wastes at concentrations $\geq$ 50 ppm requires management at facility engineered with a multilayer cap which includes a geomembrane to reduce mass flux of PCBs in groundwater by preventing infiltration. Similar to the TSCA Chemical Waste Landfill regulations at § 761.75(c)(4) which includes a provision allowing certain requirements be waived when it can be demonstrated that operation of the landfill will not present an unreasonable risk of injury to health or the environment, the risk-based disposal regulations for PCB Remediation Waste at 40 CFR §761.61(c) allow for on-site disposal of $\geq$ 50 ppm PCB Remediation Waste if EPA finds that the disposal method will not pose an unreasonable risk of injury to human health or the environment. The Superfund Division concluded that keeping the PCBs in place at the utility corridors with a soil cover (RCRA Subtitle D equivalent) instead of a 35 IAC 811 (RCRA Subtitle C equivalent) cap including a geomembrane, such as being proposed for the ODC area, will not pose an unreasonable risk of injury to human health and the environment. Groundwater downgradient of the PCB-contaminated soil areas and surface water from the North Ditch will be monitored semi-annually to verify that PCBs are not being transported from these areas. The groundwater and surface water monitoring will be included as part of the long-term

monitoring program developed for the OMC Plant 2 site under the 2009 ROD. An annual monitoring report will be prepared to document analytical results, site inspections, trend analyses, and proposed changes in the scope and frequency of the monitoring program. Five Year Reviews will be conducted to ensure the selected cleanup remedies remain protective of human health and the environment. The Preliminary Design investigation in the North and West Utility Corridors will determine the necessity for and type of Institutional Controls (ICs) for this area which may include a Notice of Land Use Restrictions and ICs (Deed Notice) recorded with the Lake County Recorder of Deeds; land-use approval from the City and agreements for development will require compliance with the 2007 ROD, the ROD Amendment, and a soil management plan (SMP) and maintenance of engineered barriers, such as caps or covers; notice of restrictions provided by the City; an existing ordinance by the City that prohibits the use of groundwater as a potable water supply and to require the use of the municipal water supply for potable use; and notifications in the City and the Illinois One-Call System databases to alert workers of the potential hazards of and requirements set forth in the SMP for conducting subsurface activities in these areas. In addition, Nicor Gas and the North Shore Sanitary District will be notified of the estimated extent of contaminated soils in their respective right-of-ways/easements as well as the requirements set forth in the SMP for incorporation into their worker notification systems (if possible).

LCD recommends the following for the utility corridor areas: 1) If not already anticipated, assess the potential for the presence of DNAPL at the west utility corridor as part of the Preliminary Design investigation; 2) evaluate the need for additional monitoring and/or engineering controls, including use of a 35 IAC 811 cap at the utility corridors, upon completion of the additional Preliminary Design Investigation sampling; 3) re-evaluate the need for additional monitoring and/or engineering controls during the annual reporting and five year review cycles; and 4) should the utilities in the north and west corridors be taken out of service, or future maintenance activities within the corridor areas render the PCB contamination accessible for remedial actions, the Soil Management Plan identified in the Decision Summary document should identify appropriate worker protection needs, require remediation of the utility corridor areas, and identify disposal requirements for PCB impacted soils. LCD believes such remedial actions for the utility corridor areas would be compliant with the TSCA 40 CFR §761.61(c) and the Regional Delegation 12-5.

If you have any questions regarding this consultation, please do not hesitate to contact me, or your staff may contact Peter Ramanauskas at (312) 886-7890 or ramanauskas.peter@epa.gov.